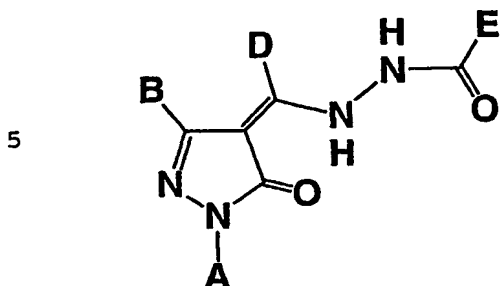


CLAIMS

1. A pyrazolone compound represented by the formula (1)

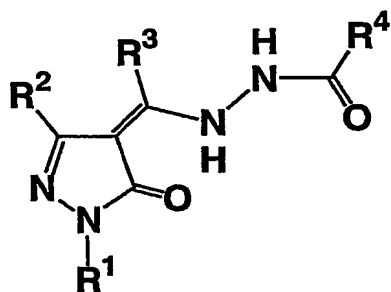


Formula (1)

wherein A is a C<sub>2-14</sub> aryl group (the C<sub>2-14</sub> aryl group may  
 10 be optionally substituted with one or more C<sub>1-6</sub> alkyl  
 groups, one or more C<sub>1-3</sub> alkyl groups substituted with one  
 or more fluorine atoms, one or more halogen atoms, one or  
 more nitro groups, one or more C<sub>1-6</sub> alkylcarbonyl groups,  
 one or more hydroxyl groups or one or more amino groups  
 15 (the hydroxyl group and the amino group may be  
 substituted with a C<sub>1-6</sub> alkyl group or a C<sub>1-6</sub> alkylcarbonyl  
 group)), B is a hydrogen atom, a C<sub>1-6</sub> alkyl group, a C<sub>1-3</sub>  
 alkyl group substituted with one or more fluorine atoms  
 or a C<sub>2-14</sub> aryl group, D is a hydrogen atom, a C<sub>1-6</sub> alkyl  
 20 group, a C<sub>1-3</sub> alkyl group substituted with one or more  
 fluorine atoms or a C<sub>2-14</sub> aryl group, and E is a C<sub>2-14</sub> aryl  
 group (the C<sub>2-14</sub> aryl group is optionally substituted with  
 one or more hydroxyl groups, one or more nitro groups,  
 one or more halogen atoms, one or more cyano groups, one  
 25 or more C<sub>1-3</sub> alkyl groups substituted with one or more  
 fluorine atoms, NG<sup>1</sup>G<sup>2</sup> (wherein G<sup>1</sup> and G<sup>2</sup> are independently  
 hydrogen atoms, formyl groups, C<sub>1-6</sub> alkyl groups or C<sub>1-6</sub>

alkylcarbonyl groups), one or more carboxyl groups, one or more sulfonic acid groups, one or more phosphonic acid groups, one or more carbamido groups (the carbamido group may be substituted with a C<sub>1-6</sub> alkyl group), one or more  
5 sulfamido groups (the sulfamido group may be substituted with a C<sub>1-6</sub> alkyl group), one or more hydroxycarbamido groups, one or more hydroxysulfamido groups, one or more tetrazole groups, one or more C<sub>1-6</sub> alkoxy carbonyl groups or X(CYZ)<sub>n</sub>CO<sub>2</sub>H (wherein X is CH<sub>2</sub>, O, S or NG<sup>3</sup> (G<sup>3</sup> is a  
10 hydrogen atom, a C<sub>1-6</sub> alkyl group, a formyl group or a C<sub>1-6</sub> alkylcarbonyl group), Y and Z are independently hydrogen atoms or C<sub>1-3</sub> alkyl groups, and n is 0, 1, 2 or 3)), a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

15 2. A pyrazolone compound represented by the formula (2)



Formula (2)

wherein R<sup>1</sup> is a C<sub>2-14</sub> aryl group (the C<sub>2-14</sub> aryl group may be optionally substituted with one or more C<sub>1-6</sub> alkyl groups, one or more C<sub>1-3</sub> alkyl groups substituted with one  
25 or more fluorine atoms, one or more halogen atoms, one or more nitro groups, one or more C<sub>1-6</sub> alkylcarbonyl groups, one or more hydroxyl groups or one or more amino groups

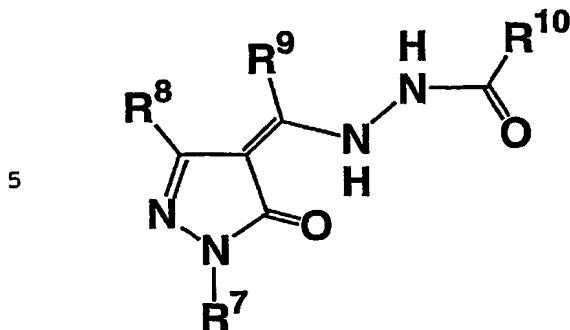
(the hydroxyl group and the amino group may be substituted with a C<sub>1-6</sub> alkyl group or a C<sub>1-6</sub> alkylcarbonyl group)), R<sup>2</sup> is a hydrogen atom, a C<sub>1-6</sub> alkyl group, a C<sub>1-3</sub> alkyl group substituted with one or more fluorine atoms or a C<sub>2-14</sub> aryl group, R<sup>3</sup> is a hydrogen atom, a C<sub>1-6</sub> alkyl group, a C<sub>1-3</sub> alkyl group substituted with one or more fluorine atoms or a C<sub>2-14</sub> aryl group, and R<sup>4</sup> is a C<sub>2-14</sub> aryl group (the C<sub>2-14</sub> aryl group is optionally substituted with one or more hydroxyl groups, one or more nitro groups or NR<sup>5</sup>R<sup>6</sup> (wherein R<sup>5</sup> and R<sup>6</sup> are independently hydrogen atoms, formyl groups, C<sub>1-6</sub> alkyl groups or C<sub>1-6</sub> alkylcarbonyl groups)), a tautomer prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

3. The pyrazolone compound according to Claim 2, wherein R<sup>4</sup> is a C<sub>2-14</sub> aryl group substituted with one or more hydroxyl groups, a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

4. The pyrazolone compound according to Claim 2, wherein R<sup>4</sup> is a C<sub>2-14</sub> aryl group substituted with NR<sup>5</sup>R<sup>6</sup> (wherein R<sup>5</sup> and R<sup>6</sup> are independently hydrogen atoms, formyl groups, C<sub>1-6</sub> alkyl groups or C<sub>1-6</sub> alkylcarbonyl groups), a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

5. The pyrazolone compound according to Claim 2, wherein R<sup>4</sup> is a C<sub>2-14</sub> aryl group substituted with one or more nitro groups, a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

6. A pyrazolone compound represented by the formula (3)



Formula (3)

wherein R<sup>7</sup> is a C<sub>2-14</sub> aryl group (the C<sub>2-14</sub> aryl group may  
10 be optionally substituted with one or more C<sub>1-6</sub> alkyl  
groups, one or more C<sub>1-3</sub> alkyl groups substituted with one  
or more fluorine atoms, one or more halogen atoms, one or  
more nitro groups, one or more C<sub>1-6</sub> alkylcarbonyl groups,  
one or more hydroxyl groups or one or more amino groups  
15 (the hydroxyl group and the amino group may be  
substituted with a C<sub>1-6</sub> alkyl group or a C<sub>1-6</sub> alkylcarbonyl  
group)), R<sup>8</sup> is a hydrogen atom, a C<sub>1-6</sub> alkyl group, a C<sub>1-3</sub>  
alkyl group substituted with one or more fluorine atoms  
or a C<sub>2-14</sub> aryl group, R<sup>9</sup> is a hydrogen atom, a C<sub>1-6</sub> alkyl  
20 group, a C<sub>1-3</sub> alkyl group substituted with one or more  
fluorine atoms or a C<sub>2-14</sub> aryl group, and R<sup>10</sup> is a C<sub>2-14</sub>  
aryl group (the C<sub>2-14</sub> aryl group is optionally substituted  
with one or more carboxyl groups, one or more sulfonic  
acid groups, one or more phosphonic acid groups, one or  
25 more carbamido groups, one or more sulfamido groups, one  
or more hydroxycarbamido groups, one or more  
hydroxysulfamido groups, one or more tetrazole groups,

one or more C<sub>1-6</sub> alkoxy carbonyl groups or X(CYZ)<sub>n</sub>CO<sub>2</sub>H  
(wherein X is CH<sub>2</sub>, O, S or NR<sup>11</sup> (R<sup>11</sup> is a hydrogen atom, a  
C<sub>1-6</sub> alkyl group, a formyl group or a C<sub>1-6</sub> alkyl carbonyl  
group), Y and Z are independently hydrogen atoms or C<sub>1-3</sub>  
5 alkyl groups, and n is 0, 1, 2 or 3)), a tautomer,  
prodrug or pharmaceutically acceptable salt of the  
compound or a solvate thereof.

7. The pyrazolone compound according to Claim 6, wherein  
R<sup>10</sup> is a C<sub>2-14</sub> aryl group substituted with one or more  
10 carboxyl groups, a tautomer, prodrug or pharmaceutically  
acceptable salt of the compound, or a solvate thereof.

8. The pyrazolone compound according to Claim 6, wherein  
R<sup>10</sup> is a C<sub>2-14</sub> aryl group substituted with X(CYZ)<sub>n</sub>CO<sub>2</sub>H  
(wherein X is CH<sub>2</sub>, O, S or NR<sup>11</sup> (R<sup>11</sup> is a hydrogen atom, a  
15 C<sub>1-6</sub> alkyl group, a formyl group or a C<sub>1-6</sub> alkyl carbonyl  
group), Y and Z are independently hydrogen atoms or C<sub>1-3</sub>  
alkyl groups, and n is 0, 1, 2 or 3), a tautomer, prodrug  
or pharmaceutically acceptable salt of the compound or a  
solvate thereof.

20 9. The pyrazolone compound according to Claim 6, wherein  
R<sup>10</sup> is a C<sub>2-14</sub> aryl group substituted with one or more  
sulfonic acid groups, a tautomer, prodrug or  
pharmaceutically acceptable salt of the compound or a  
solvate thereof.

25 10. The pyrazolone compound according to Claim 6, wherein  
R<sup>10</sup> is a C<sub>2-14</sub> aryl group substituted with one or more  
phosphonic acid groups, a tautomer, prodrug or

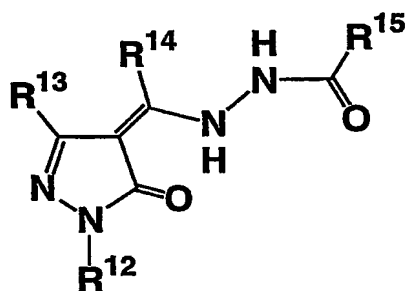
pharmaceutically acceptable salt of the compound or a solvate thereof.

11. The pyrazolone compound according to Claim 6, wherein  $R^{10}$  is a  $C_{2-14}$  aryl group substituted with one or more tetrazole groups, a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

12. The pyrazolone compound according to Claim 6, wherein  $R^{10}$  is a  $C_{2-14}$  aryl group substituted with one or more carbamido groups, a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

13. The pyrazolone compound according to Claim 6, wherein  $R^{10}$  is a  $C_{2-14}$  aryl group substituted with one or more sulfamido groups, a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

14. A pyrazolone compound represented by the formula (4)



Formula (4)

wherein  $R^{12}$  is a  $C_{2-14}$  aryl group (the  $C_{2-14}$  aryl group may be optionally substituted with one or more  $C_{1-6}$  alkyl groups, one or more  $C_{1-3}$  alkyl groups substituted with one or more fluorine atoms, one or more halogen atoms, one or more nitro groups, one or more  $C_{1-6}$  alkylcarbonyl groups, one or more hydroxyl groups or one or more amino groups

(the hydroxyl group and the amino group may be substituted with a C<sub>1-6</sub> alkyl group or a C<sub>1-6</sub> alkylcarbonyl group)), R<sup>13</sup> is a hydrogen atom, a C<sub>1-6</sub> alkyl group, a C<sub>1-3</sub> alkyl group substituted with one or more fluorine atoms or a C<sub>2-14</sub> aryl group, R<sup>14</sup> is a hydrogen atom, a C<sub>1-6</sub> alkyl group, a C<sub>1-3</sub> alkyl group substituted with one or more fluorine atoms or a C<sub>2-14</sub> aryl group, and R<sup>15</sup> is a C<sub>2-14</sub> aryl group (the C<sub>2-14</sub> aryl group is substituted with a substituent selected from a hydroxyl group, an amino group, a nitro group, a halogen atom, a cyano group, a C<sub>1-3</sub> alkyl group substituted with one or more fluorine atoms, a carbamido group and a sulfamido group (the carbamido group and the sulfamido group may be substituted with a C<sub>1-6</sub> alkyl group) and with a substituent selected from a carboxyl group, a sulfonic acid group, a phosphonic acid group, a carbamido group, a sulfamido group, a hydroxycarbamido group, a hydroxysulfamido group, a tetrazole group, a C<sub>1-6</sub> alkoxy carbonyl group and X(CYZ)<sub>n</sub>CO<sub>2</sub>H (wherein X is CH<sub>2</sub>, O, S or NR<sup>16</sup> (R<sup>16</sup> is a hydrogen atom, a C<sub>1-6</sub> alkyl group, a formyl group or a C<sub>1-6</sub> alkylcarbonyl group), Y and Z are independently hydrogen atoms or C<sub>1-3</sub> alkyl groups, and n is 0, 1, 2 or 3)), a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

15. The pyrazolone compound according to Claim 14, wherein R<sup>15</sup> is a C<sub>2-14</sub> aryl group substituted with a

hydroxyl group and a carboxyl group, a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

16. The pyrazolone compound according to Claim 14,  
5 wherein R<sup>15</sup> is a C<sub>2-14</sub> aryl group substituted with an amino group and a carboxyl group, a tautomer, a prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

17. The pyrazolone compound according to Claim 14,  
10 wherein R<sup>15</sup> is a C<sub>2-14</sub> aryl group substituted with a substituent selected from a nitro group, a halogen atom, a cyano group, a C<sub>1-3</sub> alkyl group substituted with one or more fluorine atoms, a carbamido group and a sulfamido group (the carbamido group and the sulfamido group may be  
15 substituted with a C<sub>1-6</sub> alkyl group) and with a carboxyl group, a tautomer, prodrug or pharmaceutically acceptable salt of the compound or a solvate thereof.

18. The thrombopoietin receptor activator according to Claim 1.

20 19. The thrombopoietin receptor activator according to Claim 2.

20. The thrombopoietin receptor activator according to Claim 3.

21. The thrombopoietin receptor activator according to  
25 Claim 4.

22. The thrombopoietin receptor activator according to Claim 5.



23. The thrombopoietin receptor activator according to Claim 6.
24. The thrombopoietin receptor activator according to Claim 7.
- 5 25. The thrombopoietin receptor activator according to Claim 8.
26. The thrombopoietin receptor activator according to Claim 9.
27. The thrombopoietin receptor activator according to  
10 Claim 10.
28. The thrombopoietin receptor activator according to Claim 11.
29. The thrombopoietin receptor activator according to Claim 12.
- 15 30. The thrombopoietin receptor activator according to Claim 13.
31. The thrombopoietin receptor activator according to Claim 14.
32. The thrombopoietin receptor activator according to  
20 Claim 15.
33. The thrombopoietin receptor activator according to Claim 16.
34. The thrombopoietin receptor activator according to Claim 17.
- 25 35. A preventive, therapeutic or improving agent for diseases against which activation of the thrombopoietin receptor is effective, which contains the thrombopoietin

receptor activator according to Claim 18, Claim 19, Claim 20, Claim 21, Claim 22, Claim 23, Claim 24, Claim 25, Claim 26, Claim 27, Claim 28, Claim 29, Claim 30, Claim 31, Claim 32, Claim 33 or Claim 34, a tautomer, prodrug  
5 or pharmaceutically acceptable salt of the activator or a solvate thereof, as an active ingredient.

36. A platelet increasing agent containing the thrombopoietin receptor activator according to Claim 18, Claim 19, Claim 20, Claim 21, Claim 22, Claim 23, Claim  
10 24, Claim 25, Claim 26, Claim 27, Claim 28, Claim 29, Claim 30, Claim 31, Claim 32, Claim 33 or Claim 34, a tautomer, prodrug or pharmaceutically acceptable salt of the activator or a solvate thereof, as an active ingredient.

15 37. Medicament comprising at least one compound of formula (1) according to one or more of Claim 1 to 17.